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GOVERNOR OF HAWAII

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STATE OF HAWAII
DEPARTMENT OF HEALTH
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In reply, please refer to:
EMD / CWB

08027PKP.04b
DATE: August 9, 2004 2004
NPDES PERMIT NO.: HI 0021199

PERMIT RATIONALE: REAPPLICATION FOR A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO THE WATERS OF THE UNITED STATES

PERMITTEE: MARISCO, LTD.

FACILITY: MARISCO, LTD.

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PERMITTEE MAILING ADDRESS
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PERMIT STATUS

The existing NPDES Permit No. HI 0021199 was issued on March 10, 2000 and was set to expire at midnight, March 31, 2004. On January 15, 2002, Marisco, Ltd. ("Permittee") submitted a request to modify their NPDES permit to reflect the replacement of their drydock. On March 9, 2004, the current NPDES permit was administratively extended until the permit can be reissued.

The Permittee submitted a Notice of Intent (NOI), dated March 8, 2002, to obtain NPDES general permit coverage for discharges of noncontact cooling water from docked vessels. On March 11, 2002, the Permittee was issued a Notice of General Permit Coverage (NGPC) (File No. HI 02EB264) for discharges of once-through noncontact cooling water less than one million gallons per day (MGD). The NGPC was set to expire on September 21, 2002, but the Permittee submitted a renewal NOI on August 20, 2002, and the Department of Health (DOH) granted the Permittee an administrative extenstion of the NGPC until it can be reissued.

The Director proposes to reissue a NPDES permit to incorporate changes due to the replacement of the drydock and discharges of noncontact cooling water and thermal heat to the waters of the State until March 31, 2009, and has included in the draft permit those terms and conditions which he determined are necessary to carry out the provisions of the Federal Water Pollution Control Act (PL 92-500), Federal Clean Water Act of 1977 (PL 92-217) and Chapter 342D, Hawaii Revised Statues.

FACILITY LOCATION AND OPERATION

Marisco, Ltd. is located at Kalaeloa (Barbers Point) Harbor in the southwest portion of the Campbell Industrial Park on the island of Oahu, Hawaii. The facility engages in the repair of government and commercial ships using a floating drydock and land-based maintenance shops. Discharges from the facility include harbor water flowing off the drydock surface, harbor water pumped out of the compartments under the drydock during the lifting process, non-contact cooling water from docked vessels, storm water runoff from the drydock and facility yard, and thermal heat.

The drydock is a U-shaped steel platform with tall longitudinal walls. The drydock is equipped with compartments that can be flooded with harbor water to lower the platform and pumped out to raise the platform. When the drydock is lowered into water, the ship to be repaired is pushed or tugged into position and secured to the platform. Pumps remove the waters from the compartments under the drydock to raise the platform. After the repair work is done, the compartments are flooded and the platform submerges to release the repaired ship. The submergence/floatation process takes about 1.5 to 2 hours.

Activities conducted at the facility include sandblasting, hydroblasting, painting, and other boat repair work.

Storm water accumulated on the drydock discharges to the harbor from the ends of the drydock. The storm water runoff from the land portion of the facility normally ponds in the facility yard and evaporates without discharging to the harbor. Under severe storm conditions, the storm water will overflow the containment area and discharge to the harbor. Cooling coils for land-based air compressors are submerged into the harbor near the drydock.

RECEIVING WATER CLASSIFICATION

The receiving water, Kalaeloa (Barbers Point) Harbor, is classified by the Department of Health as Class A, Embayments. The objective of Class A waters is to protect their use for recreational purposes and aesthetic enjoyment. Any other use can be permitted as long as is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters.

OCEAN DISCHARGE CRITERIA

The Director of Health has considered the Ocean Discharge Criteria, established pursuant to Section 403(c) of the Clean Water Act for the discharge of pollutants into the territorial sea, the waters of the contiguous zone, or the oceans. The EPA has promulgated regulations for Ocean Discharge Criteria in 40 Code of Federal Regulations Part 125, Subpart M. Therefore, the Director of Health (Director)has determined that the discharge will not cause unreasonable degradation to the marine environment. Based on current information, the Director proposes to issue a permit.

DESCRIPTION OF THE PRESENT DISCHARGE

The existing permit allows discharges of harbor water flowing off the drydock, harbor water pumped out of the compartments under the drydock during the lifting process, high- and low-pressure hydroblasting water, and storm water runoff from the drydock. The draft permit shall continue to allow the discharges of harbor water flowing off the drydock, harbor water pumped out of the compartments under the drydock during the lifting process, and storm water runoff from the facility. However, the draft permit will no longer allow discharges of high- and low-pressure hydroblasting water.

In addition to the types of discharges mentioned above, the draft permit shall also allow the discharges of noncontact cooling water from docked vessels and thermal heat from cooling coils placed in the harbor.

1. Harbor Water Flowing off the Drydock During a Lowering and Lifting Process

   The quality of the harbor water flowing off the drydock deck during a lowering and lifting process should essentially be similar to the harbor water except for the addition of pollutants that may be present on the drydock deck prior to drydock lowering. Potential pollutants include sandblasting grit, metals, and oil and grease.

Parameter	Proposed Discharge Limitation	Average Reported in Permit Application
Flow (MGD)	No Limitation	7.92
pH (Standard Units)	7.6 - 8.6	7.6 - 8.6
Total Arsenic (µg/l)	36	< 10.0
Total Cadmium (µg/l)	9.3	< 5.0
Total Chromium (µg/l)	50	< 5.0
Total Copper (µg/l)	2.9	88.10
Total Lead (µg/l)	5.6	< 5.0
Total Mercury (µg/l)	0.025	< 1.0
Total Zinc (µg/l)	86	70.67

2. Harbor Water Pumped out of the Compartments under the Drydock During the Lifting Process

   The quality of the water pumped out of the compartments under the drydock during the lifting process is expected to be the same as that of the harbor itself.

3. Noncontact Cooling Water

   The Permittee was issued a Notice of General Permit Coverage (NGPC) to discharge once through noncontact cooling water less than one (1) million gallons per day on March 11, 2002 (File No. HI 02EB264). The following table summarizes the water quality of the discharges of

non-contact cooling water as reported on Discharge Monitoring Reports submitted by the Permittee:

Parameter	NGPC Limitation	8/2002	2/2003	12/2003
Flow (MGD)	1.0	Not Reported	Not Reported	Not Reported
Temperature (°C)	30.0	24.2	Not Reported	Not Reported
Total Residual Oxidants (µg/l)	13.0	< 10	41.2	<22
Total Suspended Solids (mg/l)	5.0	8.22	1.31	4.9
Oil and Grease (mg/l)	15	< 1.04	13.4	<10
pH (SU)	7.6 - 8.6	8.0	7.9, 8.1	8.3

4. Storm Water Associated with Industrial Activity

No storm water discharge was reported during the previous permit term.

5. Thermal Heat

The Permittee submitted a report that studied the thermal effects of the cooling coils in the harbor. The study found that although there was a slight increase in the temperature of the harbor water surrounding the cooling coils, the increase was not significant enough to require the Permittee to apply for a Zone of Mixing for the dispersion of thermal heat.

PROPOSED DETERMINATIONS

A. Proposed Effluent Limitations and Monitoring Requirements

There are no Federal effluent guidelines for shipyards or drydocks. The proposed discharge limitations for the facility are based on Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55, the current permit limitations, and best professional judgement.

1. Harbor Water Flowing off the Drydock During a Lowering and Lifting Cycle

The proposed effluent limitations and monitoring requirements in Part A.1 of the draft permit remains the same as the existing permit except that oil and grease has been added. This is because oil spills from manlifts and forklifts on the drydock deck were witnessed by Department of Health personnel during a site visit. The limitation is based on the approximate concentration of oil and grease that would cause an oil sheen in water.

2. Harbor Water Pumped out of the Compartments under the Drydock During the Lifting Process

There are no proposed effluent limitations and monitoring requirements for this type of discharge in the draft permit. The discharge should be of the same quality as the harbor water. A requirement that no wastewater is to be discharged into the compartments has been included in Part B.2 of the draft permit.

3. Storm Water Associated with Industrial Activity

The proposed effluent limitations and monitoring requirements in Part A.2 of the draft permit remains the same as the existing permit and are based on HAR, Chapter 11-54 and HAR, Chapter 11-55, Appendix B, Discharge of Storm Water Associated with Industrial Activity.

4. Noncontact Cooling Water

The proposed effluent limitations and monitoring requirements in Part A.3 of the draft permit are based on HAR, Chapter 11-54; HAR, Chapter 11-55, Appendix E, Discharges of Once-Through Cooling Water Less Than One Million Gallons Per Day; and the NGPC, dated March 11, 2002.

5. Thermal Heat

The proposeds limitation and monitoring requirement for thermal heat from the cooling coils submerged in the harbor is specified in Part A.4 of the draft permit. They are based on temperature standards specified HAR, Chapter 11-54.

B. Other Requirements

1. Best Management Practices (BMP) Plan

The draft permit requires the Permittee to update and implement a BMP plan to ensure compliance with permit requirements.

2. Grit Tracking Log

The draft permit requires the Permittee to submit monthly Grit Tracking Logs in order to better account for grit recovery.

3. Drydock Deck Improvement Plan

The draft permit requires the Permittee to submit a Drydock Deck Improvement Plan to develop a long-term solution for preventing sandblast grit and other pollutants from contacting the drydock deck. This condition is being required because of the difficulty for removing pollutants entrained in the ridges of the drydock deck.